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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/399,696	09/21/1999	KEHSING J. CHOU	ST9-99-093	2558

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EXAMINER
NGUYEN, TAM V

ART UNIT	PAPER NUMBER
2172	24

DATE MAILED: 05/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/399,696	CHOU ET AL.	
	Examiner	Art Unit	
	Tam V Nguyen	2172	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Continued Prosecution Application

1. The request filed on 2/28/03 for a Continued Prosecution Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/399696 is acceptable and a RCE has been established. An action on the RCE follows.

Response to Arguments

2. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al. (US 6446070B1) in view of Kabayashi et al (US 6374243B1).

With respect to claims 1 and 13, Arnold discloses a system designed in accordance with the present invention assumes that each client is capable of communicating to each server over a common networking protocol such as TCP/IP. Also, it is assumed that there is a remote procedure call (RPC) subsystem on the client and server, which is capable of receiving remote requests from a client and executing them on the server. This RPC system also automatically downloads code and related

information needed for performing the task at run time, (col. 4, lines 12-20) as step of ***receiving a request for data at a federated data source.*** In FIG 4., the client selects a suitable server from the network to process the task (step 402). The selection criteria can be based upon the overall processing load distribution among the collection of server computers or the specialized computing capabilities of each server computer. For example, load-balancing techniques may be used to automatically determine which computer has the least load at a given moment. Further, some computer having specialized hardware, such as graphic accelerators or math co-processors, may be selected by the client because the task has intense graphic calculations, such as rendering three dimensional wire frames, or must perform many floating point calculations, (col. 6, lines 43-57) as step of ***selecting a server to process the request based on a load of the server and base on whether the server can satisfy the request for data.***

Arnold discloses a network 100 includes Local Area Network (LAN) 101, backbone or Wide Area Network (WAN) 112, and Local Area Network (LAN) 116 in it essential configuration. LAN 101 includes a series of workstations and server computers 102, 104, 106, and 108. LAN 116 includes a series of workstations and server computers 118, 120, 122, and 124. These computer systems 102-108 and 118-124 are couple together to share information, transmit data, and also share computational capabilities, (col. 4, lines 27-38). However, Arnold does not teach ***said server connected to one or more heterogeneous datastores***. Kobaysahi teaches in FIG 1, the application server 6 is a computer, which accommodates the client terminals

1_1-1_3 via the network 3, and is connected to the database servers 4_1-4_3, (col. 4, lines 39-43). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the server in Arnold by including said server connected to one or more heterogeneous datastores as taught in Kobaysahi. By doing so, the overall system structure is simplified and thereby lowering the cost, (col. 3, lines 45-49).

As to claims 2, 8, and 14, Arnold further discloses forwarding the request to the selected server, (col. 6, lines 42-58).

As to claims 3, 9, and 15, Arnold further discloses forwarding additional requests for similar data to the selected server, (col. 6, lines 42-58).

As to claims 4, 10, and 16, Arnold further discloses wherein the server is within a server hierarchy, (col. 4, lines 28-56).

As to claims 5, 11, and 17, Arnold further discloses upon receiving a request to add another server, connecting the server to an existing server in the server hierarchy based on a number of connections of the existing server, (col. 4, lines 28-56).

As to claims 6, 12, and 18, Arnold further discloses upon receiving a request to delete an existing server in the hierarchy, deleting that server, (col. 4, lines 28-56).

As to claim 7, in addition to the above rejection claims 1 and 13, Arnold further teaches a computer system 200 includes a central processing unit (CPU) 105, which may be implemented with a conventional microprocessor, a random access memory (RAM) 210 for temporary storage of information, and a read only memory (ROM) 215 for permanent storage of information, (col. 5, lines 10-14) as the step of ***a computer system having one or more heterogeneous data sources.***

As to claims 19-21, Arnold further discloses wherein said load of the server is based on at least the ratio of a current load of the server and a maximum load of the server, (col. 6, lines 42-58).

5. Claims 1-21 rejected under 35 U.S.C. 103(a) as being unpatentable over Nilsen et al. (US 5668986).

With respect to claims 1 and 13, Nilsen teaches the requestor workstation 104 generates requests 202 to begin logging data, (col. 3, lines 53-55) as the step of ***receiving a request for data at a federated data source.*** Controller 132 evaluates the request and responds 204 with the identification and access information for a primary database 124 (DBSX) and a mirrored redundant database 126 (DBSY) to the workstation 104. The controller assigns database servers based on the type of request, the load on each of the servers, and priority information, (col. 3, lines 35-61) as the step

of ***selecting a server to process the request based on a load of the server and base on whether the server can satisfy the request for data.*** Nilsen does not explicitly teach: ***said server connected to one or more heterogeneous datastores.*** However, as taught by Nilsen a data query using workstation 104, which transmits the request for information to controller 132 (message 302 in FIG. 3). The controller examines its data logging records to determine the database server location of location of the requested data. The server locations for the requested data are transmitted back to workstation 104 (message 304) that then issues queries 310, 312, and 314, (i.e. to each of the relevant databases), to extract the required information. The extracted information is merged and displayed or printed at workstation 104, (col. 4, lines 31-41). Thus, the controller 132 has the same functionality as the server. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Nilsen by including the server connected to one or more heterogeneous datastores in order to managing large volumes of data, (col. 1, lines 15-16).

As to claims 2, 8, and 14, Nilsen further discloses forwarding the request to the selected server, (col. 4, lines 31-41).

As to claims 3, 9, and 15, Nilsen further discloses forwarding additional requests for similar data to the selected server, (col. 4, lines 31-41).

As to claims 4, 10, and 16, Nilsen further discloses wherein the server is within a server hierarchy, (col. 4, lines 36-41).

As to claims 5, 11, and 17, Nilsen further discloses upon receiving a request to add another server, connecting the server to an existing server in the server hierarchy based on a number of connections of the existing server, (col. 4, lines 17-23).

As to claims 6, 12, and 18, Nilsen further discloses upon receiving a request to delete an existing server in the hierarchy, deleting that server, (col. 4, lines 17-23).

As to claim 7, in addition to the above rejection claims 1 and 13, Nilsen further teaches configuration controller manages the process through which data is logged from a workstation 104 to database servers 120-124, (col. 3, lines 42-44) as the step of ***a computer system having one or more heterogeneous data sources.***

As to claims 19-21, Nilsen further discloses wherein said load of the server is based on at least the ratio of a current load of the server and a maximum load of the server, (col. 3, lines 55-63).

Contact Information

6. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

7. **Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam V Nguyen whose telephone number is (703) 305-3735. The examiner can normally be reached on 7:30AM-5: 00PM.**

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Yen Vu can be reached on (703) 305-4393. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for formal communications and (703) 746-7240 for informal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, Virginia 22202. Fourth Floor (Receptionist).

8. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

TV:tv

5/1/03

JEAN M. CORRIELUS
PRIMARY EXAMINER